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**Changes to the Advanced Photon Source Storage Ring as Part of the APS Upgrade**

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The Advanced Photon Source (APS) is a third-generation storage-ring-based x-ray source that has been operating for more than 13 years and is enjoying a long period of stable, reliable operation. While APS is presently providing state-of-the-art performance to its large user community, we must clearly plan for improvements and upgrades to stay at the forefront scientifically. Significant improvements should be possible through upgrades of beamline optics, detectors, and end-station equipment. In this paper, we discuss the evolutionary changes that are envisioned for the storage ring itself. Among the possibilities are long straight sections, superconducting undulators, picosecond x-ray pulses, higher current, and improved beam stability.

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